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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GUZMAN, APRIL S	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/527,923	CHOI, SUK-WHAN	
	Examiner	Art Unit	
	April S. Guzman	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/16/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Preliminary Amendment

The present Office Action is based upon the original patent application filed on March 16, 2005 as modified by the preliminary amendment also filed on March 16, 2005. **Claims 1-15** are now pending in the present application.

Information Disclosure Statement

The information disclosure statement submitted on March 16, 2005 has been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by **Gan et al. (U.S. Patent # 7,027,418).**

Consider **claim 1**, Gan et al. disclose a method for transmitting wireless data using an adaptive frequency selection (participants communicate over the set of channels such as by using a frequency hopping protocol) (Abstract), the method being used in a device which includes a master and a slave and locally transmits wireless data in a frequency-changeable manner (The master may provide a slave with information on which channels are selected. Master typically performs the selection of good channels and notifies other participants, or slaves; however, the other participants, or slaves may perform the functions instead of the master. A master may communicate with the slave using the set of selected channels) (column 8 lines 7-19, and column 17 lines 12-24), the method comprising the steps of:

finding and storing a replacement channel with no interference which has a different frequency from a setup channel set as a data transmission channel (In block 130, performance data for communications channels is determined. In block 132, a set of communications channels is selected by comparing the performance data determined in block 130 to performance criteria to determine whether each channel is good or bad.) (Figure 1B, and column 7 lines 47-65);

checking whether there is interference in the replacement and setup channels while alternately transmitting data through the setup and replacement channels (In block 138, the set of communications channels is used to communicate with the participant. In block 140, the performance of the communications channels is redetermined. In block 142, a new set of communications channels is selected based on the testing performed in block 140 and specified performance criteria to determine which channels are currently good and which are bad.) (Figure 1B, and column 8 lines 14-46); and

when there is continuous channel interference in the setup channel, transmitting data after changing the stored replacement data to a new setup channel (In block 144, data is generated, which identifies the new set of communications channels, wherein channels maybe replaced by good channels in the normal hopping sequence. In block 148, the new set of communications channels is used to communicate with the participant wherein a master may communicate with the slave using the set of selected channels as identified in the identification data generated in block 144.) (Figure 1B, column 8 lines 47-53, and column 8 lines 60-65).

Consider **claim 2, as applied to claim 1 above**, Gan et al. disclose further comprising the step of: when there is continuous interference in the replacement channel, discarding the stored replacement channel information, and finding and storing a new replacement channel with no interference (In block 142, a new set of communications channels is selected based on the testing performed in block 140 and specified performance criteria to determine which channels are currently good and which are bad. In block 144, data is generated, which identifies the new set of communications channels, wherein channels maybe replaced by good channels in the normal hopping sequence. The known preamble at the start of the packet is used to test the performance of communications channels. The master may use identification packets, NULL packets, POLL packets, or any other kind of packet and correlate the received preamble against the known preamble. A packet that does not pass the correlation is discarded.) (Figure 1B, column 8 lines 14-46, column 8 lines 47-53, and column 12 lines 55-65).

Consider **claim 3, as applied to claim 1 above**, Gan et al. disclose wherein the slave reports to the master information on whether channel interference occurs while transmitting data through the stored replacement channel (In block 136, the channel identification data identifying

the selected set of communications channels is provided to the participant wherein the master may provide a slave with information on which channels are selected in block 132. Master typically performs the selection of good channels and notifies other participants, or slaves; however, the other participants, or slaves may perform the functions instead of the master. In block 138, the set of communications channels is used to communicate with the participant.) (Figure 1B, column 8 lines 7-19, and column 17 lines 12-24).

Consider **claim 4, as applied to claim 3 above**, Gan et al. disclose wherein the check on whether there is channel interference is performed based on whether access codes inserted in transmitted and received packets are identical (The number of error bits (NEB) that occur in the known content of the special test packets may be calculated to determine channel performance. A master test packet 360 is sent by a master to slaves to test channel performance. Master test packet 360 includes a known preamble 340, a packet header 364, a payload header 366, and copies of known preamble 370, 372, 374. By including copies of known preamble 370, 372, 374 in the payload of master test packet 360, the slave that receives master test packet 360 may calculate the number of error bits (NEB) that occur in copies of known preamble 370, 372, 374 and in known preamble 340 wherein the known preamble is referred to as the channel access code. A slave test packet 380 is sent by a slave to a master to provide channel performance measurements and to test channel performance. Slave test packet 380 includes a known preamble 340, a packet header 384, a payload header 386, an NEB of last received packet 388, and copies of known preamble 390, 392, 394. Known preamble 340 of slave test packet 380 may be the same as that of master test packet 360, provided that master test packet 360 and slave

test packet 380 are sent between participants of the same FH communications system.) (Figure 3B, Figure 3C, column 10 lines 25-30, column 10 lines 62-67, and column 11 lines 21-43).

Consider **claim 5, as applied to claim 3 above**, Gan et al. disclose wherein the check on whether there is channel interference is performed based on the number of RS-decoder bit errors of real-time data inserted in a received packet, or based on the number of bit errors of non-real-time data known to the master and slave (The number of error bits (NEB) that occur in the known content of the special test packets may be calculated to determine channel performance. For channels in which there is interference, such as from another communications system, the NEB will be high as a result of the interference. Conversely, if there is no interference, the NEB will be low.) (column 10 lines 25-30).

Consider **claim 6, as applied to claim 4 above**, Gan et al. disclose wherein a check on whether the channel interference continuously occur is performed by comparing the accumulated number of the bit errors of the real-time data and non-real-time data or the accumulated number of the non-identical bits of the access codes for a predetermined period of time with a corresponding prestored threshold value (The number of error bits (NEB) that occur in the known content of the special test packets may be calculated to determine channel performance. For channels in which there is interference, the NEB will be high as a result of the interference. Conversely, if there is no interference, the NEB will be low. Channels may be classified by comparing the test results to the performance criteria. For example, the performance criteria may be a specified value, or a specified threshold. If the BER for a channel exceeds the specified threshold, the channel is classified as "good," whereas channels with a BER that does not exceed the specified threshold are classified as "bad." Slave test packet 380 includes a known preamble

340, a packet header 384, a payload header 386, an NEB of last received packet 388, and copies of known preamble 390, 392, 394. Known preamble 340 of slave test packet 380 may be the same as that of master test packet 360, provided that master test packet 360 and slave test packet 380 are sent between participants of the same FH communications system. Slave test packet 380 includes the NEB of last received packet 388 that contains the NEB calculated by the slave for the last packet sent by the master to the slave, such as master test packet 360. The NEB of last received packet 388 is used to pass back from the slave to the master the information on the performance of the master to slave transmission over the particular channel used to send master test packet 360.) (Figure 3B, Figure 3C, column 6 lines 16-29, column 10 lines 25-30, column 11 lines 36-43, and column 11 lines 49-55).

Consider **claim 7, as applied to claim 1 above**, Gan et al. disclose wherein a length of data transmission period through the replacement channel is set to a length in which it is possible for the slave to recover loss of data transmitted through the replacement channel by obtaining and deinterleaving both data received before changing to the replacement channel and data received after returning to the setup channel (Timeout 440 specifies a particular time at which the participants are to begin using the new channel, or an amount of time that the participants of the communications system are to wait before beginning to use the good channels identified by good channel data 450.) (Figure 4, and column 17 lines 64-67 through column 18 lines 1-14).

Consider **claim 8**, Gan et al. disclose a method for transmitting wireless data using an adaptive frequency selection (participants communicate over the set of channels such as by using a frequency hopping protocol) (Abstract), the method being used in a device which includes a master and a slave and locally transmits wireless data in a frequency-changeable manner (The

master may provide a slave with information on which channels are selected. Master typically performs the selection of good channels and notifies other participants, or slaves; however, the other participants, or slaves may perform the functions instead of the master. A master may communicate with the slave using the set of selected channels) (column 8 lines 7-19, and column 17 lines 12-24), the method comprising the steps of:

a first step of transmitting and receiving data through a setup channel (An initial set of channels is selected based on one or more selection criteria at the start-up of the communications network.) (column 5 lines 63-67);

a second step of, when there is no replacement channel, setting a channel, which has a different frequency from the setup channel, as a temporary replacement channel, and then checking whether there is channel interference while transmitting and receiving data (In block 132, a set of communications channels is selected by comparing the performance data determined in block 130 to performance criteria to determine whether each channel is good or bad. Then a set of channels is selected that includes only good channels. In block 136, the channel identification data identifying the selected set of communications channels is provided to the participant.) (Figure 1B, column 7 lines 56-65, and column 8 lines 7-13);

a third step of, when there is no channel interference, storing the temporary replacement channel as a replacement channel and then returning to the setup channel (master 210 and slave 220 communicate by hopping over the selected set of good communications channels, while master 210 and slave 230 communicate by hopping over the default communications channels for the FH protocol.) (Figre 2, and column 9 lines 64-67);

a fourth step of checking whether there is interference in the setup channel and the stored replacement channel while alternately transmitting data through the setup channel and the stored replacement channel (In block 138, the set of communications channels is used to communicate with the participant. In block 140, the performance of the communications channels is redetermined.) (Figure 1B, and column 8 lines 14-29); and

a fifth step of, when interference continuously occurs in the setup channel, transmitting data after changing the stored replacement channel to a new setup channel (In block 144, data is generated, which identifies the new set of communications channels. In block 146, the data identifying the new selected set of communications channels is provided to the participant. In block 148, the new set of communications channels is used to communicate with the participant wherein a master may communicate with the slave using the set of selected channels as identified in the identification data generated in block 144.) (Figure 1B, and column 8 lines 47-65).

Consider **claim 9, as applied to claim 8 above**, Gan et al. disclose when interference continuously occurs in the stored replacement channel, the stored replacement channel is discarded and the procedure returns to the second step (In block 144, data is generated, which identifies the new set of communications channels wherein channels maybe replaced by good channels in the normal hopping sequence. The steps in blocks 140-148 may be repeated as necessary depending on the requirements of a particular application or implementation. The known preamble at the start of the packet is used to test the performance of communications channels. The master may use identification packets, NULL packets, POLL packets, or any other kind of packet and correlate the received preamble against the known preamble. A packet

that does not pass the correlation is discarded.) (Figure 1B, column 8 lines 47-53, column 8 lines 66-67 though column 9 line 1, and column 12 lines 55-65).

Consider **claim 13, as applied to claim 2 above**, Gan et al. disclose wherein the slave reports to the master information on whether channel interference occurs while transmitting data through the stored replacement channel (In block 136, the channel identification data identifying the selected set of communications channels is provided to the participant wherein the master may provide a slave with information on which channels are selected in block 132. Master typically performs the selection of good channels and notifies other participants, or slaves; however, the other participants, or slaves may perform the functions instead of the master. In block 138, the set of communications channels is used to communicate with the participant.) (Figure 1B, column 8 lines 7-19, and column 17 lines 12-24).

Consider **claim 14, as applied to claim 5 above**, Gan et al. disclose wherein a check on whether the channel interference continuously occur is performed by comparing the accumulated number of the bit errors of the real-time data and non-real-time data or the accumulated number of the non-identical bits of the access codes for a predetermined period of time with a corresponding prestored threshold value (The number of error bits (NEB) that occur in the known content of the special test packets may be calculated to determine channel performance. For channels in which there is interference, such as from another communications system, the NEB will be high as a result of the interference. Conversely, if there is no interference, the NEB will be low. Slave test packet 380 includes the NEB of last received packet 388 that contains the NEB calculated by the slave for the last packet sent by the master to the slave, such as master test packet 360. The NEB of last received packet 388 is used to pass back from the slave to the

master the information on the performance of the master to slave transmission over the particular channel used to send master test packet 360.) (Figure 3B, Figure 3C, column 10 lines 25-30, and column 11 lines 49-55).

Consider **claim 15, as applied to claim 2 above**, Gan et al. disclose wherein a length of data transmission period through the replacement channel is set to a length in which it is possible for the slave to recover loss of data transmitted through the replacement channel by obtaining and deinterleaving both data received before changing to the replacement channel and data received after returning to the setup channel (Timeout 440 specifies a particular time at which the participants are to begin using the new channel, or an amount of time that the participants of the communications system are to wait before beginning to use the good channels identified by good channel data 450.) (Figure 4, and column 17 lines 64-67 through column 18 lines 1-14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 10-12 rejected under 35 U.S.C. 103(a) as being unpatentable over **Gan et al. (U.S. Patent # 7,027,418)** in view of **Sim et al. (U.S Patent # 6,697,984)** and further in view of **You et al. (U.S. Patent # 7,079,516)**.

Consider **claim 10**, Gan et al. disclose a device for transmitting wireless data through an adaptive frequency selection by using a frequency hopping scheme (Communications network 200 includes a participants, a master 210 and slaves 220, 230 wherein participants communicate over the set of channels such as by using a frequency hopping protocol) (Abstract, and column 9 lines 37-47), the device comprising:

a channel interference detector for comparing the accumulated number of non-identical bits of access codes detected for a predetermined period of time with a prestored threshold value, and detecting from the comparison result whether channel interference occurs (The number of error bits (NEB) that occur in the known content of the special test packets may be calculated to determine channel performance. Channels may be classified by comparing the test results to the performance criteria. The performance criteria may be a specified value, or a specified threshold. If the BER for a channel exceeds the specified threshold, the channel is classified as "good," whereas channels with a BER that does not exceed the specified threshold are classified as "bad." A master test packet 360 is sent by a master to slaves to test channel performance. Master test packet 360 includes a known preamble 340, a packet header 364, a payload header 366, and copies of known preamble 370, 372, 374. By including copies of known preamble 370, 372, 374 in the payload of master test packet 360, the slave that receives master test packet 360 may calculate the number of error bits (NEB) that occur in copies of known preamble 370, 372, 374

and in known preamble 340 wherein the known preamble is referred to as the channel access code. A slave test packet 380 is sent by a slave to a master to provide channel performance measurements and to test channel performance. Slave test packet 380 includes a known preamble 340, a packet header 384, a payload header 386, an NEB of last received packet 388, and copies of known preamble 390, 392, 394. Known preamble 340 of slave test packet 380 may be the same as that of master test packet 360, provided that master test packet 360 and slave test packet 380 are sent between participants of the same FH communications system.) (Figure 3B, Figure 3C, column 6 lines 16-24, column 10 lines 25-30, column 10 lines 62-67, and column 11 lines 21-43);

a transmission/reception controller for searching channels of the random hopping frequencies for one channel with no interference, storing the searched channel as a replacement channel, and, if interference is continuously detected by the channel interference detector while alternately transmitting data through the setup channel and the replacement channel, and then changing the replacement channel to a new setup channel or searching for a new replacement channel and storing the searched replacement channel (Communications network 200 includes a master 210 and slaves 220, 230. Master 210 includes a memory 212 that may be used to store instructions, a processor 214 that may execute the instructions stored in memory 212, and a transceiver 216 that is configured to transmit and receive communications between master 210 and other devices of communications network 200, such as slaves 220, 230. Master 210 selects a set of communications channels from the default communications channels for a specified communications protocol, generates identification data for the selected set of channels, and transmits the identification data to slave 220. A new set of communications channels are

selected based on testing and specified performance criteria to determine which channels are currently good and which are bad. The new set of communications channels is used to communicate with the participant wherein a master may communicate with the slave using the set of selected channels as identified in the identification data generated.) (Figure 2, column 9 lines 37-43, and column 8 lines 30-65).

However, Gan et al. fail to disclose a transmission data generator for appending at least a redundancy and CRC for error recovery to data to be transmitted, and interleaving and outputting the resulting data;

an access code generator for appending an access code to the outputted transmission data, and packetizing the resulting data;

an access code detector for detecting an access code from a received packet;

a received data restoration unit for checking a CRC in data of the received packet to determine whether an error occurs in the data, and then RS-decoding deinterleaved data to recover a data loss,

In the related art, Sim et al. disclose a transmitter combines data to be transmitted with a cyclic redundancy check (CRC) for error check, to generate a data packet 1. When data packet 1 is classified into header packet 2 and payload packet 3, each packet is encoded into an RS code by RS encoder 4. RS-encoded header packet 2 and payload packet 3 are respectively divided into first and second header packets 5 and a first and second payload packets 6 corresponding to a code rate by puncturing in order to improve error correction capability of the RS code. Header packets and payload packets are combined with each other to generate a combined packet. Combined packets 7 are interleaved, and the interleaved first combined packet is encoded into a

CPC code having a first perforation pattern, generating the first transmission packet. The second combined packet is encoded into a CPC code with a different first perforation pattern, generating the second transmission packet. The receiver decodes first transmission packet 12 with the first perforation pattern of the CPC code to generate a first restored packet. The first restored packet passes through deinterleaver 15. Then first header packet 16 and first payload packet 17 are respectively decoded into RS codes, and checked if they have errors using the CRC. First header packet 16 and first payload packet 17 have the error correction capabilities according to the RS decoder (column 4 lines 23-67 through column 5 lines 1-18).

Therefore, it would have been obvious to one or ordinary art in the skill at the time the invention was made to incorporate the teachings of Sim et al. into the teachings of Gan et al. for the purpose of improving error correction capabilities of RS and CPC codes using a combining method of restore damaged data information with the help of data bits which are transmitted for error correction.

However, Gan et al. as modified by Sim et al. fail to disclose the device further comprising:

a hopping frequency generator for generating random hopping frequencies in response to a device address and a clock inputted thereto.

In the related art, You et al. disclose a frequency hopping transceiver 11 for generating and outputting a frequency pattern in accordance with predetermined rules (You et al. – Figure 1, and column 2 lines 51-67 though column 3 lines 1-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of You et al. into the teachings of Gan et al. as

modified by Sim et al. for the purpose of allowing predetermined packets of data to be correctly transmitted by estimating the channel qualities of operating bands in advance and transmitting the packets through and appropriate band.

Consider **claim 11, as applied to claim 10 above**, Gan et al. as modified by Sim et al. and further modified by You et al. further teaches wherein the channel interference detector detects whether channel interference occurs by accumulating the number of data bit errors of the received packet and then comparing the accumulated number of data bit errors with another threshold value (The channel testing may indicate a high bit error rate (BER) on those channels. Channels may be classified by comparing the test results to the performance criteria. For example, the performance criteria may be a specified value, or a specified threshold. If the BER for a channel exceeds the specified threshold, the channel is classified as "good," whereas channels with a BER that does not exceed the specified threshold are classified as "bad.") (Gan et al. - column 6 lines 16-24).

Consider **claim 12, as applied to claim 10 above**, Gan et al. as modified by Sim et al. and further modified by You et al. further teaches wherein the transmission/reception controller includes an internal memory storing program data for searching for a channel with no interference (Communications network 200 includes a master 210 and slaves 220, 230. Master 210 includes a memory 212 that may be used to store instructions, a processor 214 that may execute the instructions stored in memory 212, and a transceiver 216 that is configured to transmit and receive communications between master 210 and other devices of communications network 200, such as slaves 220, 230.) (Gan et al. - Figure 2, column 9 lines 37-43), the program data allowing the device to sequentially perform the steps of:

requesting a slave to perform a corresponding process for allowing data transmission and reception through one of the random hopping frequencies generated from the hopping frequency generator (In block 136, the channel identification data identifying the selected set of communications channels is provided to the participant wherein the master may provide a slave with information on which channels are selected.) (Gan et al. - Figure 1B, and column 8 lines 7-13);

transmitting/receiving data through the requested channel frequency (In block 138, the set of communications channels is used to communicate with the participant wherein a master may communicate with the slave using the set of selected channels as identified in the identification data generated in block 134.) (Gan et al. - Figure 1B, and column 8 lines 14-19); and

storing the hopping frequency as information of the replacement channel when there is no channel interference (In block 134, channel identification data is generated that identifies the set of selected communications channels.) (Figure 1B, and column 7 lines 66-67).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

You; Young-Hwan et al. (U.S. Patent # 7,079,516)

Fazel et al. (U.S. Patent # 6,275,506)

Lee; Wilson et al. (U.S. Patent # 5,887,022)

Souissi et al. (U.S. Patent # 5,809,059)

Takahashi et al. (U.S. Patent # 6,275,518)

Gilliset al. (U.S. Patent # 5,323,447)

Nielsen et al. (U.S. Patent Application Publication # 2005/0118954)

Miller et al. (U.S. Patent Application Publication # 2004/0203474)

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April S. Guzman whose telephone number is 571-270-1101. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April S. Guzman
A.S.G/asg

EDAN ORGAD
PATENT EXAMINER/TELECOMM.

12/9/08